

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A mobile agent transfer system for portable devices comprising:

a server;

a portable device; and

wherein a mobile agent ~~is~~ and a place code are transferred between said server and said portable device, said place code used to implement, on a side of said portable device, an environment in which said mobile agent is able to be executed;

wherein said server has a configuration so as to transfer; ~~said place code to said portable device when said server transfers said mobile agent to said portable device to said portable device, a place code used to implement, on a side of said portable device, an environment in which said mobile agent is able to be executed when said mobile agent is transferred from said server to said portable device;~~ and

wherein said portable device has a configuration so as to implement, on a side of said portable device and based on said place code transferred from said server, an environment in which said mobile agent transferred from said server is able to be executed.

2. (original): The mobile agent transfer system for portable devices according to Claim 1, wherein said place code is used to implement, on said portable device, an agent unarchiving section used to reconstruct said mobile agent based on information transmitted from said server,

a portable device side calculation processing section to run said mobile agent reconstructed by said agent unarchiving section, and an agent transmitting section used to transmit said mobile agent having completed operations in said portable device side calculation processing section to said server and wherein said portable device has a program control section to implement, on said portable device, said agent unarchiving section, said portable device side calculation processing section, said agent transmitting section based on said place code transmitted from said server.

3. (currently amended): A mobile agent transfer system for mobile communicating devices comprising:

a server;
a mobile communicating device;
an information transfer device to connect said mobile communicating device to said server; and

wherein a mobile agent ~~is~~ and a place code are transferred between said server and said mobile communicating device through said information transfer devices, said place code used to implement, on said mobile communicating device, an agent reconstructing section, a mobile communicating device side calculation processing section and an agent transmitting section;

wherein said server has a server side calculation processing section to run said mobile agent, an agent and place code transferring section used to transfer, to said mobile communicating device, information about an internal state of said mobile agent, a program code of said mobile agent, ~~a and said place code used to implement, on said mobile communicating device, an agent reconstructing section, mobile communicating device side calculation processing section and agent transmitting section,~~ and an agent receiving section used to retrieve

said mobile agent transferred from said mobile communicating device and putting said mobile agent into an enabled state, wherein the mobile agent is executable in the server side calculation and processing section, and

wherein said mobile communicating device has a program acquiring section used to acquire said information about an internal state of said mobile agent, said program code of said mobile agent, and said place code transmitted from said server and a program control section to implement, on said mobile communicating device, said agent reconstructing section, said mobile communicating device side calculation processing section and said agent transmitting section, based on said place code acquired by said program acquiring section, wherein said agent reconstructing section has a configuration so as to reconstruct said mobile agent based on said information about internal states of said mobile agent and said program code of said mobile agent, wherein said mobile communicating device side calculation processing section has a configuration so as to run said mobile agent reconstructed by said agent reconstructing section and wherein said agent transmitting section has a configuration so as to transmit said mobile agent having completed operations in said ~~portable~~ mobile communicating device side calculation processing section to said server.

4. (original): The mobile agent transfer system for mobile communicating devices according to Claim 3, wherein said server has a standby list creating section used to transmit, to said mobile communicating device, a standby list showing mobile agents being in a standby state to be transferred to said mobile communicating device, wherein said mobile communicating device has a standby list displaying section used to provide said standby list transmitted from said server to a user or other device and to notify said program acquiring section of said mobile

agent selected by said user or other device out of mobile agents indicated by said provided standby list, and wherein said program acquiring section has a configuration so as to make a request for acquiring said mobile agent notified by said standby list displaying section to said server.

5. (original): The mobile agent transfer system for mobile communicating devices according to Claim 3, wherein said server has a movement number managing section used to create and manage a movement number required to ignore messages other than a message that has first arrived when a plurality of messages each having same contents to transfer a mobile agent has reached said agent receiving section from said agent transmitting section in said mobile communicating device due to a failure of a network.

6. (currently amended): The mobile agent transfer system for mobile communicating devices according to Claim 3, wherein said agent and place code transferring section has an agent waiting section used to manage information about an identifier of a mobile agent and location of a program code of said mobile agent being in a standby state to be transferred to said mobile communicating device, a program description file creating section used to make a request of a program archive creating section to create an archive when a request for a program description file for a mobile agent is made from said program acquiring section and to return said program description file containing a location of said archive created by said program archive creating section to said program acquiring section, and a program archive creating section used to create, in response to a request from said program description file creating section, an archive containing-a said program code of-a said mobile agent, said information about-an said -internal

state of said mobile agent, and ~~a~~ said place code, and to return, in response to a request from said program acquiring section, said archive.

7. (currently amended): A method for transferring a mobile agent and a place code for portable devices between a portable device and a server, said method comprising:

a step in which said server transfers said place code to said portable device when said server transfers said mobile agent to said portable device ~~to said portable device, a, said place code used to implement, on a side of said portable device, an environment in which said mobile agent is able to be executed when said mobile agent is transferred from said server to said portable device;~~ and

a step in which said portable device implements, on said portable device and based on said place code transferred from said server, an environment in which said mobile agent is executed.

8. (currently amended): The method for transferring the mobile agent and the place code for portable devices according to Claim 7, wherein said place code is used to implement, on said portable device, an agent reconstructing section used to reconstruct said mobile agent based on information transmitted from said server, a portable device side calculation processing section to run said mobile agent reconstructed by said agent reconstructing section, and an agent transmitting section used to transfer said mobile agent having completed operations in said portable device side calculation processing section to said server and wherein said portable device has a program control section to implement, on said portable device and based on said

place code transmitted from said server, said agent reconstructing section, said portable device side calculation processing section and said agent transmitting section.

9. (currently amended): A method for transferring a mobile agent and a place code for portable devices ~~for transferring said mobile agent~~ between a portable device and a server, said method comprising:

a step in which said server transfers, to said portable device, information about an internal state of ~~a~~ said mobile agent, a program code of said mobile agent, and ~~a~~ said place code which is used to implement, on said portable device, an agent reconstructing section, portable device side calculation processing section, and agent transmitting section, ~~to said portable device;~~

a step in which said portable device implements, based on said place code transmitted from said server, said agent reconstructing section, said portable device side calculation processing section, and said agent transmitting section;

a step in which said agent reconstructing section reconstructs said mobile agent, based on said information about said internal states and said program code of said mobile agent transmitted from said server;

a step in which said portable device side calculation processing section executes said mobile agent that has been reconstructed by said agent reconstructing section; and

a step in which said agent transmitting section transmits said mobile agent having completed operations in said portable device side calculation processing section.

10. (currently amended): The method for transferring the mobile agent and the place code for portable devices according to Claim 9, wherein said server transmits, to said portable

device, a standby list showing mobile agents being in a standby state to be transferred to said portable device and wherein said portable device provides said standby list transmitted from said server to a user or other device and to make a request of said server for said mobile agent selected by said user or other device out of mobile agents indicated by said provided standby list.

11. (currently amended): The method for transferring the mobile agent and the place code for portable devices according to Claim 9, wherein said server creates and manages a movement number required to ignore messages other than a message that has first arrived when a plurality of messages each having same contents to transfer a mobile agent has reached said agent receiving section from said portable device due to a failure of a network.

12. (canceled).

13. (canceled).

14. (currently amended): A computer-readable storage medium storing a program for enabling a computer to implement a method of transferring a mobile agent and a place code for portable devices between a portable device and a server,

said method comprising:

said server transferring ~~a~~ said place code which is used to implement, on said portable device, an environment in which said mobile agent is able to be executed when said server transfers said mobile agent ~~is transferred~~ to said portable device; and

said portable device implementing, on said portable device, an environment in which said

mobile agent is executing, based on ~~a~~ said place code transferred from said server.

15. (currently amended): A computer-readable storage medium storing a program for enabling a computer to implement a method of transferring a mobile agent for portable devices between a portable device and a server,

said method comprising:

said server functioning,

as a server computer side calculation processing section to run said mobile agent;

as an agent and place code transferring section to transfer to said portable device, information about internal states of said mobile agent and about a program code of said mobile agent, and ~~a~~ said place code,

wherein:

said place code is used to implement on said portable device,

an agent unarchiving section to reconstruct said mobile agent, a portable device side calculation processing section to run said mobile agent reconstructed by said agent unarchiving section, and an agent transmitting section to transmit said mobile agent having completed operations in said portable device side calculation processing section to said server, based on internal states and program code of said mobile agent transmitted from said server;

and as an agent receiving section to unarchive said mobile agent transferred from said portable device and putting said mobile agent into a state wherein said mobile agent executable on said server computer side calculation processing section, and

said portable device functioning,

as a program acquiring section to acquire,

information about internal states and program code of said mobile agent transmitted from said server, and a said place code,

and as a program control section to implement, on said portable device, said agent unarchiving section, said portable device side calculation processing section, and said agent transmitting section, based on said place code acquired by said program acquiring section.

16. (currently amended): A mobile agent transfer system for mobile communicating devices comprising:

a server;

a mobile communicating device; and

wherein a mobile agent and a place code are transferred between said server and said mobile communicating device, said place code used to implement, on a side of said mobile communicating device, an environment in which said mobile agent is able to be executed;

wherein said server has a configuration so as to transfer; said place code to said mobile communicating device when said server transfers said mobile agent to said mobile communicating device, to said mobile communicating device, a place code used to implement, on a side of said mobile communicating device, an environment in which said mobile agent is able to be executed when said mobile agent is transferred from said server to said mobile communicating device;
and

wherein said mobile communicating device has a configuration so as to implement, on a side of said mobile communicating device and based on said place code transferred from said server, an environment in which said mobile agent transferred from said server is able to be executed.

17. (original): The mobile agent transfer system for mobile communicating devices according to Claim 16, wherein said place code is used to implement, on said mobile communicating device, an agent reconstructing section to reconstruct said mobile agent based on information transmitted from said server, a mobile communicating device side calculation— processing section to run said mobile agent reconstructed by said agent reconstructing section, and an agent transmitting section used to transmit said mobile agent having completed operations in said portable device side calculation processing section to said server and wherein said mobile communicating device has a program control section to implement, on said mobile communicating device, said agent reconstructing section, said mobile communicating device side calculation processing section, said agent transmitting section based on said place code transmitted from said server.